

CLAIMS

1. A resist composition for an electron beam or EUV, wherein an organic solvent comprising, as a principal component, one or more compounds selected from a group consisting of propylene glycol monomethyl ether (PGME), methyl amyl ketone (MAK), butyl acetate (BuOAc), and 3-methyl methoxy propionate (MMP) is used as a resist solvent.

2. A resist composition for an electron beam or EUV according to claim 1, which exhibits characteristics that satisfy a formula (I) shown below:

$$[\text{Film thickness (1)} - \text{Film thickness (2)}] / (150 - 130) (\text{\AA}/^{\circ}\text{C}) \leq 0.2 (\text{\AA}/^{\circ}\text{C}) \quad (\text{I})$$

[wherein, said film thickness (1) is a film thickness following application of said resist composition to a substrate in sufficient quantity to generate a film thickness of 2300 Å ±10% and subsequent heating at 130°C for 90 seconds, and said film thickness (2) is a film thickness following application of said resist composition to a substrate in sufficient quantity to generate a film thickness of 2300 Å ±10% and subsequent heating at 150°C for 90 seconds].

3. A resist composition for an electron beam or EUV according to claim 1, wherein a degree of variation in total pressure of an atmosphere inside an exposure system between a state prior to exposure and a state following exposure is less than 4.0×10^{-5} Pa.

4. A resist composition for an electron beam or EUV according to claim 1, comprising a compound (A) having acid dissociable, dissolution inhibiting groups, and an acid generator (B).
- 5 5. A resist composition for an electron beam or EUV according to claim 4, further comprising a nitrogen-containing compound (C) in addition to said components (A) and (B).
6. A method of forming a resist pattern, comprising the steps of applying a resist
10 composition for an electron beam or EUV according to any one of claim 1 through claim 5 to a substrate, conducting a prebake, conducting selective exposure or direct patterning with an electron beam or EUV in a vacuum, performing PEB (post exposure baking), and then conducting alkali developing to form said resist pattern.